

Official

RECEIVED
2-4-03
R

Attorney Docket No. P12128-US2

PENDING CLAIMS

Sub
B1

1. (Amended) A method of keeping a session active and connected with a mobile device while changing data communications networks, comprising the steps of:

receiving packets, associated with a session, over a first connection in a first data communications network;

requesting a second connection with a second data communications network while said mobile device is moving towards the second network;

acquiring an address of a second gateway associated with the second data communications network;

establishing a tunnel between a first gateway associated with the first data communications network serving said first connection and said second gateway;

routing packets, associated with said session, by said first gateway over said established tunnel to said second gateway and over the second connection based on the acquired gateway address to said mobile device.

2. The method of claim 1, wherein an entity in the second data communications network initiates the request for the second connection.

3. (Amended) The method of claim 1, wherein said first gateway in the first data communications network initiates the request for the second connection.

4. (Amended) The method of claim 1, wherein mobile device initiates the request for the second connection.

5. (Amended) A method of keeping a session active and connected with a mobile device while changing data communications networks comprising the steps of:

Amendment - PAGE 2 of 13
EUS/J/P/03-8622

Attorney Docket No. P12128-US2

~~receiving packets, associated with a session, from a first data communications network;~~
said mobile device moving from a first data communications network to a second data communications network;
selecting a preferred gateway within the second data communications network;
initiating a connection request in the second network for a second connection by said mobile device, wherein said connection request includes an address of a first gateway associated with said first network;
establishing a tunnel between said first gateway and said preferred gateway;
forwarding packets, associated with said session, to said preferred gateway over said established tunnel; and
said mobile device receiving said forwarded packets from said preferred gateway over said second connection.

As
cont.

6. (Amended) A method of keeping a session active and connected with a mobile device while changing data communications networks comprising the steps of:
receiving packets, associated with a session, from a first data communications network;
sending routing information from a gateway in said first network to one or more gateways in neighboring data communications networks;
establishing a connection between the mobile device and a second gateway, said second gateway being one of said one or more gateways in the neighboring data communications networks that is associated with a target cell;
establishing a tunnel between said gateway in said first network and said second gateway;

Attorney Docket No. P12128-US2

~~forwarding packets, associated with said session, from said gateway to said first data communications network to said second gateway over said established tunnel; and~~
receiving, in the mobile device, said forwarded packets from said second gateway.

7. (Amended) A method of keeping a session active and connected with a mobile device while changing data communications networks comprising the steps of:

receiving packets, associated with a session, from a first data communications network;

sending a request for access, from user equipment receiving said packets, to a second data communications network;

initiating a connection procedure to a second gateway in said second data communications network;

returning an address of the second gateway in the second data communications network to said user equipment;

sending said address to a first gateway in said first data communications network;

establishing a tunnel between said first gateway and said second gateway;

forwarding packets, associated with said session, from said first gateway in the first data communications network to said second gateway in the second data communications network using said address; and

receiving, at said user equipment, the forwarded packets from said second gateway in said second data communications network.

Sub B1 } 8. (New) The method of claim 2 wherein said second gateway provides the network identity associated with said second gateway to said first gateway.

9. (New) The method of claim 2 wherein said second gateway retrieves the network identity associated with said first gateway from a centralized database.

Amendment - PAGE 4 of 13
EUS/J/P/03-8822

Sub B1 10. (New) The method of claim 1 wherein said first gateway is a Gateway General Packet Radio Services Serving Node (GGSN).

11. (New) The method of claim 3 wherein said first gateway provides the network identity associated with said first gateway to said second gateway.

12. (New) The method of claim 3 wherein said first gateway buffers data intended for said mobile device until said tunnel has been established with said second gateway.

13. (New) The method of claim 4 wherein said mobile device provides the first data communications network with the network identity associated with said second gateway.

14. (New) The method of claim 4 wherein said mobile device provides the second data communications network with the network identity associated with said first gateway.

15. (New) The method of claim 1 wherein said first data communications network communicates with said second data communications network using an MobileIP protocol.

16. (New) The method of claim 5 wherein said first gateway includes a Gateway General Packet Radio Services Serving Node (GGSN).

17. (New) The method of claim 5 wherein said first gateway provides said address to said preferred gateway.

18. (New) The method of claim 6 wherein said gateway is a Gateway General Packet Radio Services Serving Node (GGSN).